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Higher Education and Field Training Program Performance: Is There a Relationship?

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Abstract

This study explores the relationship between college education and field training performance of police officers in a field training program. The field training files of 90 police officers hired by the Palm Beach Police Department between 1986 and 2001 were examined. Scores were averaged over a 3 day period at the midpoint and conclusion of the program. Although mean scores indicated that persons with four year college degrees scored slightly better than those with high school or two year degrees in four out of five behavioral categories (when controlling for previous police and military experience), statistical significance could not be obtained. Average mean scores for persons with military experience were not significantly better or worse than those persons with no prior police experience.

Higher Education and Field Training Program Performance: Is There a Relationship?

The value of higher education for entry level police officers continues to be studied and debated. The origin of the idea of higher education for law enforcement officers is often attributed to August Vollmer, the police chief of Berkley, California from 1905 to 1932. Vollmer believed education was important for police officers in order for them to develop both physical and mental skills necessary for creating a highly trained police force. Vollmer was also an advocate of scientific police methods, and believed police officers must have the technical ability to perform these methods. He began recruiting police officer candidates from college campuses. Many of Vollmer's ideas are published in his book, "The police and modern society," (1936).

Vollmer's desire for college educated police was brought to light by the National Advisory Commission on Law Observance, also known as the Wickersham Commission, which he was a member of. In the American Journal of Police Science (1931) the Wickersham Commission indicated that in order for policing to be successful, police officers should have college degrees. Birzer and Palmiotto (2002) reported that after the Wickersham Commission, there was a gradual increase in the number of colleges offering criminal justice programs. These programs received a considerable boost after World War II, as many soldiers returning home were given financial assistance to study for careers in law enforcement.

In 1965, Title One of the Higher Education Act authorized three years of funding to "aid in the continuing education of police personnel in this nation" (More, 1966). In 1967, the Presidents Commission on Law Enforcement and the Administration of Justice, in an effort to continue the trend toward law enforcement professionalism, recommended that all police officers

obtain a baccalaureate degree. This recommendation paved the way for the establishment of the Law Enforcement Assistance Administration, which provided federal funding to state and local agencies for many initiatives, including educational assistance (known as the Law Enforcement Educational Program). It should be noted that one of the main driving forces for higher education at this time was the increasing incidence of civil unrest between minorities and the police that was taking place. It was believed that higher educated officers would be less likely to participate in incidents of excessive force and other police abuses. Also, many court decisions on civil rights took place in the 1960's, including Miranda v. Arizona (1966) (police must advise suspects of rights during questioning), Mapp v. Ohio (1961) (police must obtain search warrants prior to seizing evidence or it will be excluded), and Gideon v. Wainwright (1963) (every defendant in a criminal case is entitled to a lawyer). These and other court decisions required changes in how the police conducted investigations and also resulted in increased police training.

As a result of increased funding, more colleges offered degree programs for police officers. Shernock (1992) argued, however, that many of the college programs offered were more training oriented, two year programs, which could not be compared to a four year baccalaureate program for purposes of comparison. He also indicted that the push for college degrees was more oriented toward the theory that educated police officers would make better ones, but that this theory was not based on fact due to the lack of any sound empirical studies at that time. In any event, the number of police officers receiving higher education increased (Carter & Sapp, 1990) and the number of police agencies requiring some college also increased (Bell, 1979).

While the LEAA is no longer in existence (it was abolished in 1982), many individual employers provide educational reimbursement programs to police officers, and Garner (1999)

notes that some states also provide financial incentive programs. The state of Florida, for example, offers a salary incentive program for full time police officers which is codified in Florida statutes as "Salary Incentive Program for Full Time Officers," (2003). In this program, officers obtaining a two year degree receive thirty dollars per month in financial incentives, and those obtaining a four year degree receive an additional fifty dollars per month. The debate continues as to whether or not monetary incentives should be given for police officers seeking higher education, since a college degree is still not an entry level employment requirement for most law enforcement agencies.

Molden (1999) argues that a four year requirement may exclude capable applicants who could receive education while working on the job. Hawley (1998) lists several reasons against requiring higher education, including the ability for departments to set their own hiring policies and the ability to hire persons who are representative of their communities. There is also some belief that minorities will have more difficulty entering police work with the requirement of a four year college degree. The state of Florida attempted to pass a statute requiring a two year college degree for entry level law enforcement officers by 2005 (Schaefers, 2001), however this proposal did not become law, due to opposition from the Florida Sheriffs Association who believed it would be increasingly difficult to fill positions.

Pressure from some law enforcement administrators not to require college degrees has also affected the national accreditation body, the Commission on Accreditation for Law Enforcement Agencies, Inc. Baro & Burlingame (1995) point out that in its first edition of nationally recognized standards published in1989, CALEA included college degrees as an optional standard. In 1994, the standard was deleted from the third edition manual.

Hickman and Reaves (2003), in their work for the Bureau of Justice Statistics on local police departments in the year 2000, report that nationally, 1% of all departments require a four year college degree for entry level officers, and 15% require some college, with 8% requiring a two year degree. This is an increase of 3% over previous statistics gathered in 1993. In Florida, only 25 of 327 departments responding to the annual criminal justice profile prepared by the Florida Department of Law Enforcement (2002) reported that they required some college for entry level police officers. Based on these statistics, it appears that the trend toward college degrees for entry level police officer positions is on a slow course.

A Review of Current Studies in Law Enforcement Education

The push for college degrees for police officers, prior to the 1970's, was based on the theory that higher education would be the answer to all of significant social issues facing law enforcement. There were few actual studies at that time, however, that supported this theory. A number of studies have been conducted since that time, and the following is a summary of some of the significant and also more recent studies, which have been divided into specific components.

Professional Attitudes

In a study to determine if higher education is related to attributes of professionalism, Shernock (1992) found little correlation between efficiency, commitment to service, or level of discretion, but did find a positive relationship between higher education and the importance of ethical conduct. Interestingly, he also found that younger less experienced officers who had a higher education level were less respectful to the public. Shernock believed an officers' maturity level had more of an impact on positive police/public relations than education. Regoli, Poole,

and Walls (1980) surveyed attitudes of police officers and found, however, that most of the respondents to their study held similar attitudes regardless of their educational background.

Worden (1990) conducted a study relating to citizen evaluations of the performance of police officers and found no relationship between higher education and perceived performance. However, he did conclude that the public had overall higher satisfaction with police officers who had college degrees than those who did not. Worden also found that officers with college degrees were less likely to handle incidents using strict enforcement of the law than those with a high school education.

Carter and Sapp (1989) and Kappeler, Carter and Sapp (1992) reported that college educated officers were less likely to have citizen complaints filed against them. Wilson (1999), duplicated these results in a study of 500 randomly selected officers from a large police agency, and determined that as officers attained higher education levels, they received fewer citizen complaints. Lersch and Kunzman (2001) studied allegations of misconduct against patrol deputies employed in large departments in the southeast and found that deputies with two and four year degrees (combined) had fewer complaints against them than high school educated officers.

Guller (1972) found that college educated officers were more flexible, had a higher self-esteem and were more open minded than those without degrees. In a more recent study, Carlan & Byxbe (2001) determined that there was little relationship between higher education and a lessening of a punitive attitude against criminals, however they did conclude that education appears to make police officers more humanistic and less authoritative in their treatment of citizens.

Education and Job Performance

A number of studies have been conducted relating to whether or not having a college degree results in higher job performance. Geary (1979) conducted a study of officers in three separate educational categories, namely, those with high school diplomas, four year degrees in criminal justice, and four year degrees in non-criminal justice related fields. Performance was measured based on commendations, disciplinary actions, injury and sick time usage. The results indicated that officers with a four year degree performed better than high school educated officers, and that the type of degree made no difference. Cascio (1977) in a study of the work records of 940 police officers, also determined that officers with higher educations had less incidence of injury, assault, discipline, use of sick time, and excessive force complaints.

Murrell (1982) measured eleven different areas of police performance and concluded that college educated officers had higher performance ratings in ten of the eleven areas. In addition to categories noted in the Cascio study, Murrell also found higher incidence of felony arrests, misdemeanor arrests, and arrest filing rates for college educated officers. The only area that college did not have an positive impact on was in the discharge of an officer's firearm.

Truxillo, Bennett and Collins (1998) determined in a ten year study of officer performance that college educated officers had higher opportunities for promotion and received higher ratings from supervisors in the category of job knowledge, but did not find a consistent relationship between higher education and disciplinary actions. Whetstone (2000) studied written test scores of police sergeant promotional exams and found that higher scores were positively related to the amount of education an officer had received. In addition, he found that simply attending any college had a significant impact on scores over those persons with only a high school education.

In a study of Texas law enforcement officers, Polk & Armstrong (2001) concluded that higher education was a predictor of achieving higher rank and specialized assignments. Officers themselves also appear to have a higher perception of their job performance based on education attained. Kakar (1998), in a survey of police officers in south Florida, found that officers with higher educations rated themselves better at dealing with angry citizens, stressful situations, writing ability, investigative skills, leadership, problem solving, and other performance related areas than officers with a high school education. Krimmel (1996) also found in a self survey of police officers in New Jersey and New York that college educated officers rated themselves higher than high school educated officers in all performance categories listed. Carlan (1999) surveyed police officers holding master's degrees and determined that they earn more income and have greater job satisfaction than those with bachelor's degrees. This would appear to indicate that the value of higher education does not stop with a four year degree.

Higher Education vs. Training

The idea of professionalizing the police is often equated with the requirement of a college degree. However, there are conflicting opinions regarding the value of a four year degree and whether or not degree programs offered today are more vocational in nature, or whether they live up to established liberal education requirements. Many colleges today lump criminal justice programs with health care, paralegal, and other technical trades, and many programs offer few courses outside of the major course of study.

Birzer and Palmiotto (2002) argue against such vocational type of degree programs as not providing students with a well balanced education, and that these type of degree programs mirror on the job training rather than providing higher learning skills. Flanagan (2000), in his review of current criminal justice degree programs, stresses the importance of liberal education in criminal

justice programs over practical courses. He argues that some colleges offer college credit for life experience and that many of the courses offered are specialized rather than being based on sound general college curriculum. As a result, this has cheapened the value of a college degree in providing a well balanced education.

Vollmer, often considered the father of education in policing, also argued against colleges providing practical training programs to police. He believed a police officer needed to be able to deal with people from a humanistic standpoint and that a well rounded college education provided police officers with the type of skills necessary to do so (Vollmer, 1936).

Baro and Burlingame (1999), on the other hand, report that although a number of studies relating to higher education and policing have shown positive results, enhanced training could provide similar outcomes. They argue that many police training courses often involve more than mechanics and that officers attending training courses should receive college credit. A number of colleges today do offer college credit for police training courses. In addition, Baro and Burlingame (1999) call into question whether a four year degree is necessary for police officers as it relates to the concept of professionalism. In a study of 500 students enrolled in two and four year college programs, they found that two year degree students were slightly more professionally minded when answering the survey than the four year respondents.

Travis (1995) noted in his report on police education that given the lack of a higher education requirement in the majority of police departments, the focus should be on training programs. Until higher education becomes the minimum qualification for entry into the police profession, training will be an important element for insuring police officer candidates possess the minimum skills necessary to perform the job requirements for the position.

Dantzker (1999) believes that the quality and efficiency of a police agency are primarily the result of training. Haley (1992) differentiates between education and training, stating that training provides specialized instruction, whereas higher education provides foundation. Haley believed that police officers need a "solid educational foundation from which to make their decisions about community life."

A higher education, however, may also result in better training performance. Police officer candidates attend a police training academy prior to receiving police officer certification in most states. The state of Florida, for example, currently requires over 600 hours in academy training prior to certification. Palombo (1995), in a study of police officer academy graduates in California, determined that a higher education resulted in higher academy performance.

Recruitment Issues and the College Education Requirement

The requirement of a higher education for police officers is often cited as a major roadblock in recruitment, especially in the area of recruiting minorities. Wrobleski & Hess (2003) observed that minorities are inherently more difficult to recruit, as they write, "many minorities view the police as the enemy and would never consider joining their ranks."

Lersch & Kunzman (2001) report that police departments with a college degree requirement may have more trouble recruiting qualified personnel due to current salary levels for entry level positions, as the pay for police officer is often lower than that of many other college educated professions.

Decker and Huckabee (2002) studied the Indianapolis Police Department and determined that college degree requirements would reduce the number of qualified applicants, but in doing so, would streamline the hiring process. Shernock & Dantzker (1997) also report that college degree requirements may limit the applicant pool and discriminate against minorities.

Not all reports regarding the ability to attract minority applicants are grim. A review of the 1967 President's Crime Commission report cited that police departments are hiring more women and minorities (Conley, 1992). Carter & Sapp (1990) reported that women are being recruited having higher education levels than males, and minorities are being hired reflective of population statistics. Hickman & Reaves (2003), in a study for the Bureau of Justice Statistics on local police departments, found that between 1990 and 2000, the number of black officers increased from 10.5% to 11.7%, the number of female officers increased from 8.1% to 10.6%, and the number of Hispanic police officers increased from 5.2% to 8.3%.

Dantzger (1999) believes that higher education may not be the roadblock to minority recruitment, but that higher educated women and minorities may choose not to enter the policing profession because of better employment opportunities in other fields. He also reported that in 1997, after the Chicago Police Department initiated a two year college requirement for entry level police positions, 52% of those who were rated in the well qualified category were minority group members.

Higher education may not have as great an impact on recruiting as other job related areas. Police agencies in the future will need to look at pay, benefits, and job satisfaction as motivators to attract qualified applicants to the field of policing (Peirson, u.d.).

Education and the Professional vs. Community Policing Models

The police officers of the 19th century were poorly trained, inefficient, and often corrupt. Officers were often selected based on political connections or to reward patronage. In order to improve the delivery of police services, the professional model of policing was born (Walker & Katz, 2003). The professional model of policing incorporated a rigid military chain of command, with officers expected to follow orders and procedures often outlined in a duty or procedures

manual. Officers were expected to respond to calls and follow procedures, with little need to think past established policy. Autocratic control from a hierarchal chain of command would end the corrupt practices of the past. While the movement during this time period was for improving education of police officers, this idea had little to do with solving community problems, but rather to improve the efficiency of the operation of the department (Skolnick, 19974).

The main impetus behind the professional model of policing was to control crime, and all other work was considered social work and had nothing to do with the police mission (Kelling & Moore, 1988). Rapid police respond to incidents in a radio patrol car was considered the most important element in combating crime.

In the 1970's, around the same time period as the movement to require higher education for police officers, two studies in Kansas City were conducted that discounted the previous notions of how to effect crime. The first one, conducted in 1974, found that police patrol had little effect on preventing crime. In this study, police patrols were eliminated from five patrol zones (other than responding to calls for service), maintained at current staffing levels at another five zones, and were saturated in five others . The results indicated no change in the number of crimes committed, regardless of the number of police patrol vehicles present in the area. (Kelling, Pate, Dieckman & Brown, 1974). The second experiment studied rapid police response in solving crime and apprehending suspects, and found no correlation between rapid response and success in solving cases (Kansas City Police Department, 1980).

Policing up to the latter 1970's was generally reactionary; officers responding from call to call, taking reports and making arrests, rather than pro-active; attempting to reduce crime through pro-active means. Wilson & Kelling (1982) discussed the phenomenom of attempting to solve

crime reactively in their article, "Broken Windows," and stressed the importance of order maintenance in communities to reduce the perception of crime.

Moore, Trajanowics, and Kelling, in 1988, wrote, "...improved crime control can be achieved by (1) diagnosing and managing problems in the community that produce serious crimes, (2) fostering close relationships with the community to facilitate crime solving, and (3) building self-defense capabilities with the community itself." The ideas of these, and others, changed the reactionary approach of policing toward the concept of community policing.

While many question what the definition of community policing actually is, most police agencies today purport to have some form of community policing. The concept of community policing requires officers to be able to think pro-actively and develop solutions to community problems. Many of the solutions to these problems may include programs to alleviate poverty, after school programs for kids, drug awareness and prevention, solving neighborhood disputes and neighborhood cleanup programs. These solutions seem distant to the traditional responsibilities of the police; solving crime and apprehending criminals.

A number of researchers support the idea of higher education in meeting the needs of the community policing movement (Palmiotto, 1994) (Carter & Sapp, 1990). Today's police officer must be able to interact with a diverse community and be able to understand increasingly complex legal decisions which have a direct impact on operational methods.

Vodicka (1994) found, for example, that college educated police officers are more flexible and have better communication skills, and are more adaptable to change. Stevens (1999) writes that higher education develops a broader base of information for decision making and increases maturity. The skills found in college educated officers directly relate to the concept of community policing.

Summary

A number of studies have been conducted relating to whether higher education has a beneficial effect on police officer performance. Palombo (1995), in her review of over 40 previous studies, found only 2 that show higher educational levels resulting in lower job performance.

It should be noted that many of the studies conducted, including many cited in this paper, are somewhat dated. While some may argue that the basic role of policing has not changed and will not in the foreseeable future, (Bittner, 1970) many changes have in fact occurred over the past 30 years that have directly affected law enforcement. Dantzker (1999) points out many of these changes, including computerization, fingerprint technologies, crime mapping, report writing in the field with computers, lasers, vehicle tracking devices, cell telephones, advanced weaponry, video cameras in police cars, and simulators, to name a few. Most of these technologies were non-existent during the 1970's and early 1980's, when a number of studies on higher education and policing were conducted.

The handling of police calls for service has also changed. Scientific evidence collection is much more prevalent today, and officers must have an understanding of the many legal issues that face them in the successful prosecution of cases. Initiatives relating to high profile cases, such as domestic violence and driving under the influence have also changed the way police officers handle calls today than how they were handled in the past.

Perhaps most importantly, community policing has changed the way police operate, requiring a pro-active rather than reactive approach. Watson, Stone, and Deluca (1998) identify problem solving, critical thinking, and interpersonal communications skills as those needed today

by police officers in order to be successful. The majority of studies indicate that higher education provides an officer with the skills necessary to perform community policing functions.

The vast majority of police departments today still do not require a four year college degree for entry level police officer positions. Yates (1999) identified only two states, Wisconsin and Minnesota, that require two year degrees. However, the movement toward college degrees is proceeding, albeit slowly. Hurdles continue to include minority recruitment, pay and benefits issues, and administrators who believe a degree is not necessary or that training is a substitute for higher education.

The Current Study

The purpose of the current study is to determine whether there is a relationship between education and success in a municipal police department field training program. While many studies have been conducted concerning relationships between college education and performance, none were directly related to field training program scores. Hooper (1988) was able to find a statistical relationship between college education and police academy scores in his study of police officer recruits at the Los Angeles Police Department.

Background

The Palm Beach Police Department (Palm Beach, Florida) was chosen as the municipal police department to be examined in this study due to the researchers ability to easily obtain field training scores and personnel information. The Town of Palm Beach is a barrier island located in southeast Florida, approximately 13 miles long and approximately ½ mile wide. The police department is service oriented and serves an affluent community of approximately 10,568 full time residents with a median family income of $137,867 as reported in the United States Census (2000). Currently, the authorized strength of sworn personnel for the department is 78.

This number has remained relatively stable during the study period, with personnel strength varying between 75 and 80 personnel.

The Palm Beach Police Department utilizes the San Jose field training program model for evaluating police recruits in the field training program. The San Jose Model was based on a Recruit Training and Management Proposal, originally developed by Lt. Robert L. Allen in 1970, and was first used by the San Jose Police Department in 1971. Recognizing deficiencies in recruitment, training and retention, Allen developed a daily observation report along with a narrative section so that raters could identify strengths and weaknesses. The program was revised in 1972, and raters began receiving training in how to rate recruits. In 1973, the program was again revised. Dr. Michael Roberts, Director of Psychological Services for the Police Department, and Doug Zwenku, a police officer with the department, reviewed the daily observation reports prepared by the raters and developed 31 specific traits to be rated on a 7 point scale. The scale used ranged from 1 (unacceptable) to 7 (outstanding), with 4 (acceptable) being the midpoint or passing score. Sgt. Glen Kaminsky of the San Jose Police Department then revised the recruit checklist which had been more oriented toward department policy and procedure and changed it to capture more critical job related areas. The field training program general categories which are used to rate recruits are appearance, attitude, knowledge, performance and relationships. Under each of these categories are specific behaviors which are rated and scored individually (Institute of Police Technology & Management, 1990).

In 1974, Sgt. Tom Perez, based on a questionnaire to the field training staff, developed standard evaluation guidelines for rating police recruits. These guidelines were initiated in 1975 and are used in the program today (Institute of Police Technology & Management, 1990).

The Palm Beach Police Department began utilizing the San Jose Field Training Program model in 1986. Originally, the department rated recruits in 31 specific areas identical to the San Jose Model. Over the past 15 years, the department slightly modified the field training observation report form several times, resulting in a daily observation report identifying 27, 28, and 30 categories. The majority of applicants reviewed in this study were rated on the 31 category daily observation report (see Appendix 1).

All field training officers of the Palm Beach Police Department receive training in the San Jose Model of field training, either through the Institute of Police Technology or through the local Criminal Justice Institute located at Palm Beach Community College. Officers are selected based on a review of their personnel files, and more recently, undergo an oral review board prior to final selection. Officers originally received no additional compensation for performing field training duties, however after 1989, the department began offering monetary incentives which have steadily increased.

Method

The personnel files of all officers entering the Palm Beach Police Department field training program from 1986-2001 were reviewed to determine educational status at the time of hiring, and whether or not they had any prior police or military experience. Files were not examined after 2001 as the department adopted a policy of only hiring personnel who either were already certified or possessed at least 60 credit hours of college. Based on the uneven distribution of persons hired at different educational levels, levels were combined to create the following categories: Level 1 - high school, one year college, Level 2 - two and three years of college, Level 3 - Baccalaureate Degree and higher.

Years of college were determined based on the number of college credits reported by the recruit at the time of hiring. Hours were broken down at the following levels: 1 year = 30 college credits, 2 years = 60 college credits, 3 years = 90 college credits, and 4 years = 120 or more hours of college credits.

The Palm Beach Police Department field training program consists of 12 to 14 weeks of training. The program can be extended if it is believed that the recruit would benefit from additional training. The department also provides an abbreviated program to persons with prior police experience, based on the performance of the individual.

The field training files of each candidate were subsequently reviewed. As it would be extremely difficult to review all scores in 31 categories over a 12 to 14 week period, daily observation reports were reviewed at the middle of the program (days 28 through 30) and at the final three days of the end of the program. These scores were then averaged to create a snapshot of the progress of each recruit at the middle and end of the program. The reason for taking a three day sample was to capture as many observed traits as possible, as it should be noted that if a specific trait is not observed by a rater on a particular day, the scoring is left blank. The average ratings of the individual behaviors were then combined and reported in their respective general categories. All statistical data was analyzed using SPSS version 12.0 statistical software (see Appendix 2).

Hypothesis

The hypothesis of this study is that there is a direct positive relationship between level of education and field training program scores, both at the midpoint and end of the program. The null hypothesis is that there is no statistically significant difference in test scores based on

educational level. As part of this study, recruits will also be separated by prior police and prior military experience to determine if test score results are affected due to these factors.

Results

There were 90 recruits studied who completed the field training program between 1986 and 2001. When combining all 90 recruits and disregarding whether or not any had prior police or military experience, the breakdown based on educational experience was high school N = 29, two year college N=24, and four year college N=37. In reviewing the scores at the midpoint of the program, a means analysis indicated that those with high school performed slightly better in the categories of appearance and knowledge, whereas four year college recruits performed slightly better in the attitude category. Those with two years of college performed better in the categories of performance and relationships. However, a one way analysis of variance (ANOVA) test indicated a lack of statistical significance necessary to confirm any hypothesis results (see Appendix 6).

A review of the second half of scoring indicated that high school graduates scored slightly better than two or four year college recruits. Again, a one way ANOVA test failed to indicate statistical significance and therefore no conclusion can be drawn on these results. The category of performance did show an elevated F score, however a confidence level of .311 is too high to indicate statistical significance (see Appendix 7).

A second analysis was conducted which eliminated those persons with prior police or military experience. This resulted in a total number of 48 recruits, 12 in the high school category, 10 in the two years of college category, and 26 having four or more years of college. In conducting a means comparison at the midpoint of the program, those with four years of

college performed slightly better in all categories except knowledge. In the knowledge category, those with two years of college had the highest mean average (see Figure 1).

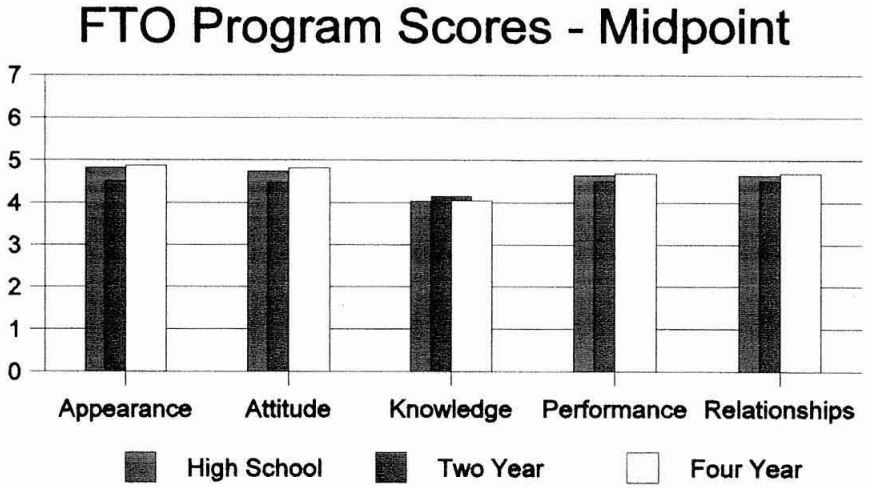

Figure1

A one way ANOVA failed to indicate a statistical significance. Although F scores in the appearance category were elevated, the confidence level was extremely high at .354 and significance must therefore be rejected (See Appendix 8).

Mean averages of the scores at the second half of the program indicated those with four years of college scored slightly higher at relationships, however those with high school performed better in appearance and performance. Two year college recruits did better in the attitude and knowledge categories than their counterparts. A one way ANOVA test failed to indicate any statistical significance in the variable comparison (see Appendix 9).

Conclusions

Based on one way ANOVA tests in all cases, statistical significance was unable to be obtained at confidence levels necessary to support the hypotheses. The null hypothesis must therefore be accepted and the hypothesis in this study must be rejected. It is important to note that the average means for those persons having four years of college were higher in the first half of the FTO program (when controlling prior police and military experience) in almost all categories. This may indicate that those with four year degrees respond more quickly to training than their counterparts. Part of the difficulty in making comparisons with small and uneven groups is the ability to obtain statistical significance. In addition, there is more likelihood that final scores become more centralized at the end of the field training program, as the tendency may be to score most officers who will pass the program in the acceptable "4" range. This would indicate that the first half scores may have more overall significance than second half scoring.

Secondary findings during this study indicated that overall, mean averages were higher for persons with prior police experience than those with no experience at both the midpoint and end of the program, which would be expected. Mean averages for military experience were varied and for the first half of the program, were often lower than for persons without any experience. Scores for military experience improved during the second half of the program when compared with persons with no experience, but overall were lower than persons with prior police experience (see Appendixes 4 and 5). Aamodt (1996), in a review of 18 available studies regarding military experience, concluded that there was no empirical evidence present to indicate that military veterans will perform better as police officers than non-veterans. Although the study population in this project was relatively small, the results appear to confirm that military experience had no particular impact on field training scores.

While no statistical significance could be determined in this particular study, it is recommended that any future studies related to field training program test scores sample more than one police department and obtain larger sample sizes for each educational category, which would therefore provide the researcher with better opportunities to obtain statistical significance. It may also be prudent to review individual behavior traits rather than obtain an overall category score based on several traits averaged together in one particular category. For example, it was noted that frequently during this study college educated recruits were observed having higher scores in report writing than their counterparts, however when averaged with other traits in the performance category, the significance was diminished. By selecting individual behaviors, the researcher may eliminate those relating to mechanical functions (driving skills) and concentrate on areas relating to oral and written communication skills, which may be more positively related to college education.

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APPENDIX 1
DAILY OBSERVATION REPORT FORM

PALM BEACH POLICE DEPARTMENT

DAILY OBSERVATION REPORT NO. _____

TRAINEE'S LAST NAME, FIRST INITIAL I.D. #: FTO'S LAST NAME, FIRST INITIAL I.D. #: DATE

RATING INSTRUCTIONS: Rate observed behavior with reference to the scale below. Comment on the most and least satisfactory performance of the day. Comment on any behavior you wish, but a specific comment is required on all ratings of "2" or less and "6" and above. Check "N.O." box if not observed. If trainee fails to respond to training, check "N.R.T." box and comment.

WATCH WORKED:

FTO PHASE:

RATING SCALE

NOT ACCEPTABLE BY FTO PROGRAM STANDARDS ------> 1 2 3 ACCEPTABLE LEVEL <4> 5 6 7 <------ SUPERIOR BY FTO PROGRAM STANDARDS

ASSIGNMENT OR REASON FOR NO EVALUATION

			N.O.	N.R.T		R.T.
	1-	1 2 3 4 5 6 7	[ ]	[ ]	1 GENERAL APPEARANCE	
					ATTITUDE	
	2-	1 2 3 4 5 6 7	[ ]	[ ]	2 ACCEPTANCE OF FEEDBACK - FTO/PROGRAM	
	3-	1 2 3 4 5 6 7	[ ]	[ ]	3 ATTITUDE TOWARD POLICE WORK	
					KNOWLEDGE	
					4 KNOWLEDGE OF DEPARTMENT POLICIES AND PROCEDURES	
	4-	1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED BY VERBAL/WRITTEN/SIMULATED TESTING	
		1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED IN FIELD PERFORMANCE	
					5 KNOWLEDGE OF CRIMINAL STATUTES	
	5-	1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED BY VERBAL/WRITTEN/SIMULATED TESTING	
		1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED IN FIELD PERFORMANCE	
					6 KNOWLEDGE OF CITY ORDINANCES	
	6-	1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED BY VERBAL/WRITTEN/SIMULATED TESTING	
		1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED IN FIELD PERFORMANCE	
					7 KNOWLEDGE OF TRAFFIC CODES	
	7-	1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED BY VERBAL/WRITTEN/SIMULATED TESTING	
		1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED IN FIELD PERFORMANCE	
					8 KNOWLEDGE OF CODES OF CRIMINAL PROCEDURE	
	8-	1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED BY VERBAL/WRITTEN/SIMULATED TESTING	
		1 2 3 4 5 6 7	[ ]	[ ]	REFLECTED IN FIELD PERFORMANCE	
					PERFORMANCE	
	9-	1 2 3 4 5 6 7	[ ]	[ ]	9 DRIVING SKILL: NORMAL CONDITIONS	
	10-	1 2 3 4 5 6 7	[ ]	[ ]	10 DRIVING SKILL: MODERATE AND HIGH STRESS CONDITIONS	
	11-	1 2 3 4 5 6 7	[ ]	[ ]	11 ORIENTATION/RESPONSE TIME TO CALLS	
	12-	1 2 3 4 5 6 7	[ ]	[ ]	12 ROUTINE FORMS: ACCURACY/COMPLETENESS	
	13-	1 2 3 4 5 6 7	[ ]	[ ]	13 REPORT WRITING: ORGANIZATION/DETAILS	
	14-	1 2 3 4 5 6 7	[ ]	[ ]	14 REPORT WRITING: GRAMMAR/SPELLING/NEATNESS	
	15-	1 2 3 4 5 6 7	[ ]	[ ]	15 REPORT WRITING: APPROPRIATE TIME USED	
	16-	1 2 3 4 5 6 7	[ ]	[ ]	16 FIELD PERFORMANCE: NON-STRESS CONDITIONS	
	17-	1 2 3 4 5 6 7	[ ]	[ ]	17 FIELD PERFORMANCE: STRESS CONDITIONS	
	18-	1 2 3 4 5 6 7	[ ]	[ ]	18 INVESTIGATIVE SKILL	
	19-	1 2 3 4 5 6 7	[ ]	[ ]	19 INTERVIEW/INTERROGATION SKILL	
	20-	1 2 3 4 5 6 7	[ ]	[ ]	20 SELF-INITIATED FIELD ACTIVITY	
	21-	1 2 3 4 5 6 7	[ ]	[ ]	21 OFFICER SAFETY: GENERAL	
	22-	1 2 3 4 5 6 7	[ ]	[ ]	22 OFFICER SAFETY: SUSPECTS/SUS. PERS./PRISONERS	
	23-	1 2 3 4 5 6 7	[ ]	[ ]	23 CONTROL OF CONFLICT: VOICE COMMAND	
	24-	1 2 3 4 5 6 7	[ ]	[ ]	24 CONTROL OF CONFLICT: PHYSICAL SKILL	
	25-	1 2 3 4 5 6 7	[ ]	[ ]	25 PROBLEM SOLVING/DECISION MAKING	
	26-	1 2 3 4 5 6 7	[ ]	[ ]	26 RADIO: APPROPRIATE USE OF CODES/PROCEDURE	
	27-	1 2 3 4 5 6 7	[ ]	[ ]	27 RADIO: LISTENS AND COMPREHENDS	
	28-	1 2 3 4 5 6 7	[ ]	[ ]	28 RADIO: ARTICULATION OF TRANSMISSIONS	
					RELATIONSHIPS	
	29-	1 2 3 4 5 6 7	[ ]	[ ]	29 WITH CITIZENS IN GENERAL	
	30-	1 2 3 4 5 6 7	[ ]	[ ]	30 WITH ETHNIC GROUPS OTHER THAN OWN	
	31-	1 2 3 4 5 6 7	[ ]	[ ]	31 WITH OTHER DEPARTMENT MEMBERS	

_____ MINUTES OF REMEDIAL TRAINING TIME (EXPLAIN REMEDIAL PLANS)

APPENDIX 2
PROGRAM DATA MIDPOINT

1	1	5.00	5.00	5.00	5.36	5.00
2	1	5.66	5.00	4.16	4.64	5.00
3	1	4.00	4.00	4.00	3.85	4.00
4	1	4.30	4.00	3.22	3.39	4.00
5	1	5.00	5.00	4.00	3.99	4.22
6	1	5.00	5.00	3.61	4.08	5.00
7	1	5.00	5.00	4.22	4.21	5.00
8	1	4.00	4.50	3.66	3.42	4.00
9	1	5.00	5.00	3.88	3.76	5.00
10	1	5.00	5.00	4.00	4.12	4.50
11	1	6.00	5.38	5.00	5.03	6.00
12	1	4.00	4.00	3.66	4.15	4.00
13	2	4.00	4.00	4.00	3.97	4.00
14	2	4.00	4.00	3.25	3.58	4.00
15	2	5.00	5.00	4.28	4.18	5.00
16	2	4.00	3.66	3.66	3.52	4.00
17	2	4.66	5.00	4.16	4.18	5.00
18	2	5.00	5.00	4.66	4.51	5.00
19	2	3.66	4.00	3.05	3.41	4.00
20	2	4.00	4.33	4.51	4.44	4.00
21	2	5.66	5.66	5.58	5.26	6.00
22	2	5.00	4.00	4.36	4.10	4.00
23	3	4.66	4.66	3.25	3.50	4.00
24	3	5.00	5.00	4.44	4.70	5.00
25	3	5.00	7.00	4.00	4.86	6.00
26	3	4.00	4.00	3.83	3.53	4.00
27	3	4.66	4.50	4.00	3.77	4.00
28	3	5.33	4.83	4.70	4.87	5.00
29	3	5.00	4.66	4.00	4.00	4.83
30	3	5.00	4.33	3.72	3.92	4.88
31	3	5.00	5.00	4.00	4.31	5.00
32	3	5.00	5.00	4.08	3.97	5.00
33	3	4.00	5.00	3.66	3.98	4.33
34	3	5.00	4.33	4.00	4.02	4.00
35	3	4.00	4.00	3.50	3.61	4.00
36	3	4.33	4.33	4.00	3.89	4.33
37	3	4.00	4.00	4.33	4.14	4.00
38	3	6.00	5.00	3.66	4.17	5.00
39	3	4.00	4.50	3.93	3.94	4.66
40	3	6.00	7.00	5.00	5.91	7.00
41	3	5.00	4.66	4.61	4.54	4.66
42	3	5.33	5.16	4.33	4.23	4.66
43	3	5.33	4.66	4.00	4.08	4.77
44	3	4.00	4.00	3.50	3.84	4.00
45	3	7.00	6.00	4.61	4.82	6.00
46	3	5.00	5.00	4.08	4.53	4.33
47	3	5.00	4.33	4.00	3.92	4.33

48	3	4.00	4.16	3.81	3.81	4.00
49	4	4.00	4.00	4.00	4.00	4.00
50	4	6.00	6.00	5.80	5.62	6.00
51	4	5.00	5.00	4.66	4.64	4.66
52	4	6.00	6.00	4.00	4.83	5.33
53	4	4.33	4.33	4.00	3.69	4.33
54	4	4.33	4.00	4.00	3.89	4.00
55	4	6.66	6.66	5.33	5.08	6.66
56	4	5.66	4.66	4.94	4.88	4.33
57	4	5.00	5.00	4.86	4.79	5.11
58	4	6.00	5.00	5.00	4.80	5.50
59	4	5.00	5.00	4.55	4.40	5.00
60	5	4.33	4.00	3.66	3.88	4.00
61	5	3.66	4.00	3.00	3.30	4.00
62	5	5.00	5.00	4.50	4.48	5.00
63	5	6.00	5.33	5.46	5.31	5.88
64	5	5.33	5.50	5.17	5.04	5.66
65	5	5.00	5.00	4.88	4.93	5.00
66	5	4.00	3.66	3.66	3.52	4.00
67	5	5.66	4.50	4.00	4.56	4.83
68	5	5.00	4.66	4.00	4.09	5.00
69	5	6.00	5.83	4.44	4.70	6.00
70	5	7.00	7.00	5.16	6.22	7.00
71	6	6.00	6.00	5.46	5.74	6.00
72	6	5.00	5.00	4.48	4.83	5.00
73	6	4.00	4.00	3.66	4.00	4.00
74	6	5.00	5.00	4.00	4.00	5.00
75	6	5.33	5.00	4.11	4.42	5.00
76	6	5.00	4.83	4.00	4.30	4.83
77	6	4.66	4.33	4.11	3.95	4.33
78	7	5.00	5.00	4.00	4.00	4.66
79	7	5.00	4.83	3.95	4.02	5.00
80	7	6.00	4.83	3.91	4.34	5.00
81	7	4.00	4.00	4.00	4.06	4.33
82	7	5.00	5.00	4.00	4.07	5.00
83	7	5.00	4.00	4.00	3.97	4.00
84	8	5.00	4.50	3.88	4.29	5.00
85	8	4.66	4.33	3.97	4.25	4.33
86	8	5.00	5.00	3.95	3.94	5.00
87	9	6.00	6.00	5.47	5.33	6.00
88	9	5.00	5.00	4.00	3.56	4.33
89	9	5.00	4.16	4.00	4.26	4.16
90	9	5.00	5.00	4.00	4.00	5.00

1=High School No Experience
2=Two Year College No Experience
3=Four Year College No Experience
4=High School Prior Experience
5=Two Year Prior Experience
6=Four Year Prior Experience
7=High School Military Experience
8=Two Year Military Experience
8=Four Year Military Experience

APPENDIX 3
PROGRAM DATA FINAL

1	1	5.00	5.00	4.72	5.08	5.00
2	1	6.00	6.00	5.20	5.89	6.00
3	1	4.33	4.66	4.08	4.51	4.44
4	1	5.00	5.16	4.06	3.96	4.66
5	1	6.00	6.00	5.38	5.55	5.55
6	1	6.00	6.00	5.00	5.00	5.00
7	1	5.00	5.00	4.16	4.10	5.00
8	1	4.33	3.33	3.00	4.00	4.16
9	1	5.33	6.00	4.94	5.33	5.11
10	1	5.00	5.00	4.10	4.79	5.00
11	1	5.00	5.00	4.58	4.41	5.00
12	1	5.00	4.00	4.00	4.28	4.00
13	2	4.00	4.00	4.00	3.97	4.00
14	2	6.00	7.00	6.00	5.85	6.50
15	2	6.00	6.00	5.00	5.03	6.00
16	2	3.66	4.00	3.22	3.31	4.00
17	2	5.00	4.50	4.16	4.31	4.50
18	2	6.00	6.00	5.91	5.45	6.00
19	2	5.00	5.00	4.14	4.16	4.33
20	2	4.00	4.00	4.21	3.83	4.00
21	2	5.66	5.66	5.58	5.26	6.00
22	2	5.00	4.83	5.00	4.28	5.00
23	3	4.66	4.16	4.00	4.06	4.00
24	3	4.00	5.00	4.00	4.67	4.76
25	3	6.00	6.00	5.88	5.62	6.00
26	3	4.00	4.00	3.86	3.96	4.00
27	3	4.33	4.33	4.00	4.02	4.00
28	3	5.33	5.00	4.05	4.56	5.00
29	3	5.00	5.00	4.08	4.77	5.00
30	3	5.00	5.00	4.66	4.40	5.00
31	3	5.00	5.00	4.11	4.39	5.11
32	3	5.00	5.00	4.00	4.31	5.27
33	3	4.00	4.50	4.08	4.11	4.83
34	3	4.00	4.00	4.00	4.12	4.00
35	3	4.66	4.66	4.16	4.37	4.66
36	3	4.00	4.50	4.00	4.28	4.83
37	3	4.33	4.33	3.41	3.85	4.50
38	3	4.00	5.00	3.91	4.36	4.00
39	3	4.66	4.66	4.40	4.60	4.83
40	3	6.00	6.00	5.16	5.26	6.00
41	3	7.00	7.00	6.00	7.00	7.00
42	3	7.00	7.00	5.05	4.91	7.00
43	3	6.00	6.00	5.00	4.76	6.00
44	3	4.00	4.83	4.00	4.48	5.16
45	3	6.66	6.00	5.33	5.50	6.00
46	3	5.00	5.00	4.00	4.08	5.00
47	3	5.00	5.00	4.00	4.52	5.00

48	3	5.33	5.33	4.86	4.93	5.33
49	4	4.00	4.00	4.00	4.37	4.00
50	4	6.00	6.00	5.80	5.62	6.00
51	4	5.00	5.00	4.33	4.52	5.00
52	4	6.33	6.33	5.83	5.90	6.55
53	4	4.00	4.00	4.00	4.04	4.66
54	4	4.00	4.00	4.00	4.03	4.00
55	4	6.00	6.00	6.00	5.77	6.00
56	4	6.00	6.00	5.16	5.62	6.00
57	4	5.33	5.33	4.83	4.99	5.00
58	4	5.00	5.00	4.66	5.00	5.66
59	4	5.00	5.00	5.00	5.13	5.11
60	5	4.00	4.00	4.00	4.00	4.00
61	5	4.00	4.00	3.50	3.52	4.00
62	5	5.00	5.00	4.00	4.32	5.00
63	5	6.00	5.33	5.46	5.31	5.88
64	5	5.33	5.50	5.17	5.04	5.66
65	5	5.00	5.00	4.88	4.93	5.00
66	5	3.66	4.00	3.22	3.31	4.00
67	5	6.33	5.83	5.00	5.14	6.00
68	5	5.00	5.00	4.00	4.12	5.00
69	5	6.00	5.50	4.50	5.02	6.00
70	5	5.66	5.66	5.33	5.58	5.66
71	6	6.00	6.00	5.46	5.74	6.00
72	6	6.00	6.00	5.28	5.16	5.88
73	6	5.66	5.33	4.88	5.04	5.33
74	6	6.00	6.00	4.83	5.18	5.22
75	6	5.00	4.16	4.08	4.26	4.16
76	6	5.00	4.83	4.00	4.30	4.83
77	6	6.00	6.00	4.16	4.58	6.00
78	7	6.00	6.00	5.11	5.36	5.33
79	7	6.00	6.00	5.00	4.94	6.00
80	7	6.00	5.00	4.09	4.44	5.00
81	7	6.00	6.33	5.66	5.64	6.16
82	7	5.00	5.00	4.00	3.97	5.00
83	7	5.00	5.00	5.00	4.78	5.00
84	8	6.00	5.00	4.66	4.86	5.00
85	8	4.33	4.33	4.33	4.67	5.00
86	8	5.33	5.00	5.00	5.22	5.44
87	9	6.00	6.00	5.77	5.61	5.88
88	9	5.33	5.33	4.00	4.37	5.33
89	9	5.00	4.33	4.22	4.14	4.16
90	9	4.66	5.00	4.00	4.16	4.33

1=High School No Experience
2=Two Year College No Experience
3=Four Year College No Experience
4=High School Prior Experience
5=Two Year Prior Experience
6=Four Year Prior Experience
7=High School Military Experience
8=Two Year Military Experience
8=Four Year Military Experience

APPENDIX 4
COMPARISON TABLE OF MEANS
MIDPOINT SCORES

Report

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school	Mean	4.8300	4.7400	4.0342	4.1667	4.6433
	N	12	12	12	12	12
	Std. Deviation	.64518	.48460	.52795	.59260	.62754
two year	Mean	4.4980	4.4650	4.1510	4.1150	4.5000
	N	10	10	10	10	10
	Std. Deviation	.65207	.65131	.72864	.55173	.70711
four year	Mean	4.8708	4.8119	4.0400	4.1869	4.6838
	N	26	26	26	26	26
	Std. Deviation	.73682	.78990	.40293	.52698	.73864
high school exp	Mean	5.2709	5.0591	4.6491	4.6018	4.9927
	N	11	11	11	11	11
	Std. Deviation	.85333	.85333	.61120	.56674	.84495
two year exp	Mean	5.1800	4.9527	4.3573	4.5482	5.1245
	N	11	11	11	11	11
	Std. Deviation	.97122	.95835	.76754	.84038	.95227
four year exp	Mean	4.9986	4.8800	4.2600	4.4629	4.8800
	N	7	7	7	7	7
	Std. Deviation	.60889	.62942	.58146	.64365	.62942
high school mil	Mean	5.0000	4.6100	3.9767	4.0767	4.6650
	N	6	6	6	6	6
	Std. Deviation	.63246	.47858	.03830	.13426	.42217
two year mil	Mean	4.8877	4.6100	3.9333	4.1600	4.7767
	N	3	3	3	3	3
	Std. Deviation	.19457	.34828	.04726	.19157	.38682
four year mil	Mean	5.2500	5.0400	4.3675	4.2875	4.8725
	N	4	4	4	4	4
	Std. Deviation	.50000	.75260	.73500	.75266	.83456
Total	Mean	4.9466	4.8064	4.1887	4.2888	4.7751
	N	90	90	90	90	90
	Std. Deviation	.73621	.72430	.57416	.59274	.73109

APPENDIX 5
COMPARISON TABLE OF MEANS
FINAL SCORES

Report

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school	Mean	5.1658	5.0958	4.4350	4.7417	4.9100
	N	12	12	12	12	12
	Std. Deviation	.57814	.84315	.66454	.63614	.55204
two year	Mean	5.0320	5.0990	4.7220	4.5450	5.0330
	N	10	10	10	10	10
	Std. Deviation	.89573	1.03368	.92071	.81030	.99655
four year	Mean	4.9985	5.0885	4.3846	4.6112	5.0877
	N	26	26	26	26	26
	Std. Deviation	.94272	.80670	.65328	.66488	.83736
high school exp	Mean	5.1509	5.1509	4.8736	4.9991	5.2709
	N	11	11	11	11	11
	Std. Deviation	.87334	.87334	.75975	.68399	.84608
two year exp	Mean	5.0891	4.9836	4.4600	4.5718	5.1091
	N	11	11	11	11	11
	Std. Deviation	.89564	.68778	.76319	.75667	.80714
four year exp	Mean	5.6657	5.4743	4.6700	4.8943	5.3457
	N	7	7	7	7	7
	Std. Deviation	.47141	.73810	.59484	.53898	.68673
high school mil	Mean	5.6667	5.5550	4.8100	4.8550	5.4150
	N	6	6	6	6	6
	Std. Deviation	.51640	.61980	.64175	.60656	.53313
two year mil	Mean	5.2200	4.7767	4.6633	4.9167	5.1467
	N	3	3	3	3	3
	Std. Deviation	.84042	.38682	.33501	.27934	.25403
four year mil	Mean	5.2475	5.1650	4.4975	4.5700	4.9250
	N	4	4	4	4	4
	Std. Deviation	.57139	.69496	.85465	.70109	.81961
Total	Mean	5.1691	5.1396	4.5627	4.7104	5.1196
	N	90	90	90	90	90
	Std. Deviation	.80787	.79035	.70551	.66424	.76294

APPENDIX 6
MIDPOINT SCORES COMBINED ALL

Education		Appearance	Attitude	Knowledge	Performance	Relationships
High School	Mean	5.0324	4.8341	4.2555	4.3131	4.7803
	N	29	29	29	29	29
	Std. Deviation	.73154	.65396	.58455	.55660	.68566
Two Year	Mean	4.8593	4.7067	4.2183	4.3192	4.8208
	N	24	24	24	24	24
	Std. Deviation	.82815	.79463	.69705	.68984	.83190
Four Year	Mean	4.9359	4.8495	4.1170	4.2500	4.7414
	N	37	37	37	37	37
	Std. Deviation	.68879	.74280	.47890	.56652	.71484
Total	Mean	4.9466	4.8064	4.1887	4.2888	4.7751
	N	90	90	90	90	90
	Std. Deviation	.73621	.72430	.57416	.59274	.73109

ANOVA MIDPOINT SCORES COMBINED ALL

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.401	2	.200	.364	.696
	Within Groups	47.838	87	.550		
	Total	48.239	89			
Attitude	Between Groups	.330	2	.165	.309	.735
	Within Groups	46.360	87	.533		
	Total	46.690	89			
Knowledge	Between Groups	.341	2	.170	.511	.602
	Within Groups	28.999	87	.333		
	Total	29.340	89			
Performance	Between Groups	.095	2	.047	.133	.876
	Within Groups	31.174	87	.358		
	Total	31.269	89			
Relationships	Between Groups	.093	2	.047	.085	.918
	Within Groups	47.477	87	.546		
	Total	47.570	89			

APPENDIX 7
FINAL SCORES COMBINED ALL

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school	Mean	5.2638	5.2117	4.6790	4.8628	5.1514
	N	29	29	29	29	29
	Std. Deviation	.70373	.80793	.70517	.63668	.68674
two year	Mean	5.0817	5.0058	4.5946	4.6037	5.0821
	N	24	24	24	24	24
	Std. Deviation	.85307	.80477	.78170	.72623	.82426
four year	Mean	5.1516	5.1697	4.4508	4.6603	5.1189
	N	37	37	37	37	37
	Std. Deviation	.86647	.77831	.65495	.64005	.79774
Total	Mean	5.1691	5.1396	4.5627	4.7104	5.1196
	N	90	90	90	90	90
	Std. Deviation	.80787	.79035	.70551	.66424	.76294

ANOVA FINAL SCORES COMBINED ALL

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.455	2	.227	.343	.710
	Within Groups	57.632	87	.662		
	Total	58.087	89			
Attitude	Between Groups	.614	2	.307	.486	.617
	Within Groups	54.980	87	.632		
	Total	55.594	89			
Knowledge	Between Groups	.880	2	.440	.881	.418
	Within Groups	43.420	87	.499		
	Total	44.300	89			
Performance	Between Groups	1.039	2	.520	1.182	.311
	Within Groups	38.228	87	.439		
	Total	39.268	89			
Relationships	Between Groups	.063	2	.032	.053	.948
	Within Groups	51.742	87	.595		
	Total	51.805	89			

APPENDIX 8

MIDPOINT SCORES NO PRIOR EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school	Mean	4.8300	4.7400	4.0342	4.1667	4.6433
	N	12	12	12	12	12
	Std. Deviation	.64518	.48460	.52795	.59260	.62754
two year	Mean	4.4980	4.4650	4.1510	4.1150	4.5000
	N	10	10	10	10	10
	Std. Deviation	.65207	.65131	.72864	.55173	.70711
four year	Mean	4.8708	4.8119	4.0400	4.1869	4.6838
	N	26	26	26	26	26
	Std. Deviation	.73682	.78990	.40293	.52698	.73864
Total	Mean	4.7829	4.7217	4.0617	4.1669	4.6354
	N	48	48	48	48	48
	Std. Deviation	.69981	.69763	.50538	.53758	.69522

ANOVA MIDPOINT SCORES - NO PRIOR EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	1.039	2	.520	1.064	.354
	Within Groups	21.978	45	.488		
	Total	23.017	47			
Attitude	Between Groups	.875	2	.437	.895	.416
	Within Groups	21.999	45	.489		
	Total	22.874	47			
Knowledge	Between Groups	.101	2	.051	.191	.827
	Within Groups	11.903	45	.265		
	Total	12.004	47			
Performance	Between Groups	.037	2	.019	.062	.940
	Within Groups	13.545	45	.301		
	Total	13.583	47			
Relationships	Between Groups	.245	2	.123	.245	.783
	Within Groups	22.472	45	.499		
	Total	22.717	47			

APPENDIX 9

FINAL SCORES - NO PRIOR EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school	Mean	5.1658	5.0958	4.4350	4.7417	4.9100
	N	12	12	12	12	12
	Std. Deviation	.57814	.84315	.66454	.63614	.55204
two year	Mean	5.0320	5.0990	4.7220	4.5450	5.0330
	N	10	10	10	10	10
	Std. Deviation	.89573	1.03368	.92071	.81030	.99655
four year	Mean	4.9985	5.0885	4.3846	4.6112	5.0877
	N	26	26	26	26	26
	Std. Deviation	.94272	.80670	.65328	.66488	.83736
Total	Mean	5.0473	5.0925	4.4675	4.6300	5.0319
	N	48	48	48	48	48
	Std. Deviation	.84234	.84685	.71452	.67860	.79999

ANOVA FINAL SCORES - NO PRIOR EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.233	2	.116	.158	.854
	Within Groups	33.116	45	.736		
	Total	33.349	47			
Attitude	Between Groups	.001	2	.000	.001	.999
	Within Groups	33.705	45	.749		
	Total	33.706	47			
Knowledge	Between Groups	.839	2	.419	.815	.449
	Within Groups	23.156	45	.515		
	Total	23.995	47			
Performance	Between Groups	.231	2	.116	.243	.785
	Within Groups	21.412	45	.476		
	Total	21.643	47			
Relationships	Between Groups	.259	2	.130	.196	.823
	Within Groups	29.820	45	.663		
	Total	30.079	47			

APPENDIX 10
MIDPOINT SCORES, PRIOR EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school exp	Mean	5.2709	5.0591	4.6491	4.6018	4.9927
	N	11	11	11	11	11
	Std. Deviation	.85333	.85333	.61120	.56674	.84495
two year exp	Mean	5.1800	4.9527	4.3573	4.5482	5.1245
	N	11	11	11	11	11
	Std. Deviation	.97122	.95835	.76754	.84038	.95227
four year exp	Mean	4.9986	4.8800	4.2600	4.4629	4.8800
	N	7	7	7	7	7
	Std. Deviation	.60889	.62942	.58146	.64365	.62942
Total	Mean	5.1707	4.9755	4.4445	4.5479	5.0155
	N	29	29	29	29	29
	Std. Deviation	.82932	.82353	.66649	.67725	.82049

ANOVA MIDPOINT SCORES - PRIOR EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.319	2	.159	.219	.805
	Within Groups	18.939	26	.728		
	Total	19.258	28			
Attitude	Between Groups	.146	2	.073	.101	.904
	Within Groups	18.843	26	.725		
	Total	18.990	28			
Knowledge	Between Groups	.782	2	.391	.873	.430
	Within Groups	11.656	26	.448		
	Total	12.438	28			
Performance	Between Groups	.083	2	.041	.084	.920
	Within Groups	12.760	26	.491		
	Total	12.843	28			
Relationships	Between Groups	.265	2	.133	.185	.832
	Within Groups	18.585	26	.715		
	Total	18.850	28			

APPENDIX 11
FINAL SCORES - PRIOR EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school exp	Mean	5.1509	5.1509	4.8736	4.9991	5.2709
	N	11	11	11	11	11
	Std. Deviation	.87334	.87334	.75975	.68399	.84608
two year exp	Mean	5.0891	4.9836	4.4600	4.5718	5.1091
	N	11	11	11	11	11
	Std. Deviation	.89564	.68778	.76319	.75667	.80714
four year exp	Mean	5.6657	5.4743	4.6700	4.8943	5.3457
	N	7	7	7	7	7
	Std. Deviation	.47141	.73810	.59484	.53898	.68673
Total	Mean	5.2517	5.1655	4.6676	4.8117	5.2276
	N	29	29	29	29	29
	Std. Deviation	.81470	.77137	.72361	.68697	.77403

ANOVA FINAL SCORES - PRIOR EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	1.602	2	.801	1.227	.310
	Within Groups	16.982	26	.653		
	Total	18.585	28			
Attitude	Between Groups	1.034	2	.517	.860	.435
	Within Groups	15.627	26	.601		
	Total	16.660	28			
Knowledge	Between Groups	.941	2	.471	.892	.422
	Within Groups	13.720	26	.528		
	Total	14.661	28			
Performance	Between Groups	1.067	2	.533	1.142	.335
	Within Groups	12.147	26	.467		
	Total	13.214	28			
Relationships	Between Groups	.273	2	.136	.215	.808
	Within Groups	16.503	26	.635		
	Total	16.776	28			

APPENDIX 12

MIDPOINT SCORES - MILITARY EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school mil	Mean	5.0000	4.6100	3.9767	4.0767	4.6650
	N	6	6	6	6	6
	Std. Deviation	.63246	.47858	.03830	.13426	.42217
two year mil	Mean	4.8877	4.6100	3.9333	4.1600	4.7767
	N	3	3	3	3	3
	Std. Deviation	.19457	.34828	.04726	.19157	.38682
four year mil	Mean	5.2500	5.0400	4.3675	4.2875	4.8725
	N	4	4	4	4	4
	Std. Deviation	.50000	.75260	.73500	.75266	.83456
Total	Mean	5.0510	4.7423	4.0869	4.1608	4.7546
	N	13	13	13	13	13
	Std. Deviation	.50660	.54765	.41744	.40514	.53112

ANOVA MIDPOINT SCORES - MILITARY EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.254	2	.127	.450	.650
	Within Groups	2.826	10	.283		
	Total	3.080	12			
Attitude	Between Groups	.512	2	.256	.829	.464
	Within Groups	3.087	10	.309		
	Total	3.599	12			
Knowledge	Between Groups	.459	2	.229	1.405	.290
	Within Groups	1.632	10	.163		
	Total	2.091	12			
Performance	Between Groups	.107	2	.053	.286	.757
	Within Groups	1.863	10	.186		
	Total	1.970	12			
Relationships	Between Groups	.105	2	.053	.160	.854
	Within Groups	3.280	10	.328		
	Total	3.385	12			

APPENDIX 13

FINAL SCORES - MILITARY EXPERIENCE

education		Appearance	Attitude	Knowledge	Performance	Relationships
high school mil	Mean	5.6667	5.5550	4.8100	4.8550	5.4150
	N	6	6	6	6	6
	Std. Deviation	.51640	.61980	.64175	.60656	.53313
two year mil	Mean	5.2200	4.7767	4.6633	4.9167	5.1467
	N	3	3	3	3	3
	Std. Deviation	.84042	.38682	.33501	.27934	.25403
four year mil	Mean	5.2475	5.1650	4.4975	4.5700	4.9250
	N	4	4	4	4	4
	Std. Deviation	.57139	.69496	.85465	.70109	.81961
Total	Mean	5.4346	5.2554	4.6800	4.7815	5.2023
	N	13	13	13	13	13
	Std. Deviation	.60047	.64081	.62652	.55800	.58835

ANOVA FINAL SCORES - MILITARY EXPERIENCE

		Sum of Squares	df	Mean Square	F	Sig.
Appearance	Between Groups	.601	2	.301	.807	.473
	Within Groups	3.725	10	.373		
	Total	4.327	12			
Attitude	Between Groups	1.259	2	.629	1.716	.229
	Within Groups	3.669	10	.367		
	Total	4.928	12			
Knowledge	Between Groups	.235	2	.118	.263	.774
	Within Groups	4.475	10	.447		
	Total	4.710	12			
Performance	Between Groups	.266	2	.133	.383	.691
	Within Groups	3.470	10	.347		
	Total	3.736	12			
Relationships	Between Groups	.588	2	.294	.825	.466
	Within Groups	3.566	10	.357		
	Total	4.154	12			